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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

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REPLY TO: 3430 FIDM Evaluation

September 4, 1979

SUBJECT: Biological Evaluation of Indian Ridge

TO: Forest Supervisor, Cleveland N.F.

July 25 Mike Srago, a pathologist on the Forest Insect and Disease Management Staff, met with Charles Coval to examine a Coulter pine stand in the Indian Ridge area.

The trees were infected with the western gall rust (Peridermium harknessii). The only trees infected were the residual trees that survived an early fire caused by a plane crash in the late 1950's. Most of these trees were in the drainages.

The infected trees all had main-stem infections. When the fungus infects the main stem it slowly girdles the tree, causing galls to form, and weakens the trunk at the gall. This predisposes the part of the tree above the gall to windthrow.

On Indian Ridge some of the trees had died and others had broken tops, just above the gall.

Western gall rust is caused by a fungus that spreads from pine to pine. From examination of the infected trees it would appear that some time during the early or mid 1950's, environmental conditions were conducive for a major outbreak of this disease. However, it does not appear that these conditions have occurred since, because there is no evidence of more recent infections by this fungus.

Now that a new stand of Coulter pine is growing up through the brush these infected residual trees represent a potential source of infection to the new stand.

The management alternatives are:

1. Do nothing. If the environmental conditions conducive to the spread of the disease do not occur, the new stand will remain healthy. However, if these conditions do occur, as in the past, the disease will spread into the new stand, predisposing the trees to insects and/or creating trees hazardous to recreationists.

2. Remove the infected trees. Charles Coval estimated that there were 50 infected trees scattered throughout the area.

   If these trees were removed, the inoculum source would be removed

from the area. This would reduce the possibility of new infections and the potential problems new infections represent.

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